

In the Claims:

Please amend claims 1-43 as follows:

1. (Original) A method for producing an artifact-corrected image of a negative jaw impression in a recipient jaw, comprising;

forming a negative impression of said recipient jaw;

producing a first digital image of said negative jaw impression;

producing a second digital image, ~~including~~ comprising said artifacts, of said negative jaw impression in said recipient jaw;

using said first digital image to produce an artifact-corrected computer representation of said negative impression in said recipient jaw.

2. (Original) The method of claim 1, comprising adjusting said negative jaw impression during formation to allow easy manipulation of said impression on said recipient jaw.

3. (Currently Amended) The method of ~~claims~~ claim 1, ~~or 2~~ comprising setting one or more tooth implant models in said negative jaw impression, prior to producing said images.

4. (Currently Amended) A The method of ~~any of the previous claims~~ claim 1, comprising incorporating one or more reference markings in said negative jaw impression wherein said reference markings are visible in said first and second images.

5. (Canceled).

6. (Currently Amended) The method of ~~any of the previous claims~~ claim 1, wherein said first and second digital images comprise voxels.

7. (Canceled).

8. (Canceled).

9. (Canceled).
10. (Canceled).
11. (Currently Amended) The method of ~~any of the previous claims~~ claim 1, comprising forming an image comprised of the upper portion of the first image and the lower portion of the second image wherein said upper portion is free of said artifacts.
12. (Currently Amended) A ~~The method according to any of the previous claims~~ of claim 1, comprising setting one or more drilling trajectories in said artifact-corrected computer representation.
13. (Currently Amended) A ~~The method according to any of the previous claims~~ of claim 1, comprising using said artifact- corrected computer representation to produce a drilling template.
14. (Canceled).
15. (Currently Amended) A ~~The method according to any of claims 1-13~~ claim 1, comprising using said artifact-corrected computer representation to produce a model of said recipient jaw.
16. (Canceled).
17. (Currently Amended) A ~~The method according to~~ of claim 15 or claim 16, comprising using said ~~model of said~~ recipient jaw model to produce a drilling template.
18. (Currently Amended) A ~~The method according to any of claims 15-17~~ claim 1, comprising using said negative impression of said recipient jaw to produce said drilling template.
19. (Canceled).
20. (Original) A method for producing a model of a recipient jaw from which a drilling template is machined, comprising;

producing a 3D digital image of said recipient jaw;

placing bore trajectories in said 3D digital image; and

producing a model of said recipient jaw from said 3D digital image.

21. (Canceled).

22. (Canceled).

23. (Currently Amended) A ~~The method according to any of claims 20-22~~ claim 20, comprising boring said recipient jaw model to produce boring trajectories within said negative template.

24. (Canceled).

25. (Canceled).

26. (Currently Amended) A ~~The method according to any of claims 20-25~~ claim 20, comprising placing said drilling template in said recipient jaw, making an image and determining that it seats properly in said recipient jaw.

27. (Currently Amended) A ~~The method according to any of claims 20-26~~ claim 20, comprising placing said drilling template in said recipient jaw, making an image and determining that the planned trajectories are properly aligned.

28. (Canceled).

29. (Canceled).

30. (Canceled).

31. (Original) A digital image merging system, comprising:

a) a first input adapted to receive a first digital image of a recipient jaw ~~including~~ comprising artifacts;

b) a second input adapted to receive a second digital image of a negative impression of said jaw; and

a digital merging unit adapted to receive and merge said first and second digital images to form a reproduced image having reduced artifacts with reference to said first image.

32. (Currently Amended) The system according to claim 31, ~~including~~ comprising a tooth implant model setter that sets one or more tooth implant models in said negative jaw impression, prior to producing said images.

33. (Currently Amended) The system ~~according to claim 31 or claim 32,~~ including comprising one or more reference markings in said first and second images, wherein said digital merging unit merges said first and second images using said one or more markings.

34. (Currently Amended) The system ~~according to any of claims 31-33~~ claim 31, wherein said first and second digital images comprise voxels images.

35. (Canceled).

36. (Canceled).

37. (Canceled).

38. (Canceled).

39. (Canceled).

40. (Currently Amended) The system ~~according to any of claims 31-39~~ claim 31, wherein said system ~~includes~~ comprises a drilling template modeler that receives said reproduced image and models a drilling template based upon said image.

41. (Canceled).

42. (Canceled).

43. (Canceled).